

Recovery Plan Action Status

Plan Name: Snake River Aquatic Species Recovery Plan

Plan Status: Final

Plan Date: 26-Nov-95

Lead Agency: USFWS

Lead Office: Idaho Fish And Wildlife Office

(208)

378-3243)

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	111	Prevent further diversion of surface flows in the Snake River basin	Unknown			Idaho Department of Water Resources, Idaho Power Company, U.S. Bureau of Reclamation, Snake River Fish and Wildlife Office, U.S. Federal Energy Regulatory Commission	Work type not yet selected	Labor type not yet selected	Use existing state law, FERC regulations, and Section 7. IFWS continues to receive proposals for Snake River water diversion. Future demands for increased hydropower, irrigation, human use, and associated storage projects are likely and outcomes uncertain given Idaho water policy.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	112	Use existing authorities to conserve aquatic habitats through the FERC licensing and relicensing regulations	Partially Complete	FY 1995 - FY 1999		Idaho Power Company, Snake River Fish and Wildlife Office	Acquisition: Easement, Management: General	Internal Technical Assistance	Use Section 7 and other existing authorities. Several habitats associated with listed snails have received protection through conservation plans and are now administered by IPC and Idaho Parks. These include Box Canyon, Banbury Springs, Briggs Springs, and Thousand Springs. Idaho Power Co. has played a key role in working with FWS to conserve key snail habitats and in conducting surveys and monitoring. The State of Idaho and private interests are considering new dams and water projects.

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Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	1131	Use existing authorities and mechanisms to establish instream flows for the S.R., including the purchase and transfer of existing water rights from the Water Supply Bank.	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, Idaho Department of Fish and Game, Idaho Department of Water Resources	Work type not yet selected	Labor type not yet selected	
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	1132	Evaluate the potential effects of S.R. Basin Adjudication on listed species recovery	Complete	FY 1995 - FY 1999	FY 2000 - FY 2004	U.S. Fish and Wildlife Service, Ecological Services Division, Idaho Water Resource Board, U.S. Bureau of Reclamation	Work type not yet selected	Labor type not yet selected	this recovery action has been completed in the 2004 middle Snake River Bi-Op drafted by the SRFWO.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	126	Continue the moratorium preventing further ground water appropriation.	Ongoing Not Current	FY 2000 - FY 2004		Idaho Department of Water Resources	Management: General	Labor type not yet selected	Groundwater management was being adjudicated through the Snake River Basin adjudication process. The groundwater moratoria was extended by Executive Order, but groundwater levels are expected to continue to decline due to increased efficiency in irrigation practices which does not allow as much infiltration into the groundwater. Continuing unauthorized groundwater withdrawals.

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Snake River physa snail (Physa natricina)	2	131	Evaluate the feasibility of mollusc and fish control programs	Obsolete			U.S. Fish and Wildlife Service, Ecological Services Division, Idaho Department of Fish and Game, Idaho Power Company, Idaho Department of Agriculture, U.S. Bureau of Reclamation, U.S. Federal Energy Regulatory Commission, U.S. Environmental Protection Agency	Work type not yet selected	Labor type not yet selected	Not currently considered feasible task
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	2	132	Determine if existing State Importation regulations are effective in preventing additional nuisance organisms from becoming established in Idaho.	Unknown			U.S. Fish and Wildlife Service, Ecological Services Division, Idaho Department of Fish and Game, Idaho Department of Agriculture	Work type not yet selected	Labor type not yet selected	Regulatory review and recommend legislative action. Should conduct planning discussions with ISDA.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	3	211	Nonpoint Source Management Plan	Not Started			Idaho Department of Environmental Quality, U.S. Environmental Protection Agency	Work type not yet selected	Labor type not yet selected	
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	212	Compliance of Section 401 Certification by the State with adequate water quality standards	Unknown			U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Bureau of Land Management, U.S. Bureau of Reclamation, U.S. Federal Energy Regulatory Commission, U.S. Farm Service Agency, U.S. Fish and Wildlife Service National Wildlife Refuge System, U.S. Environmental Protection Agency	Work type not yet selected	Labor type not yet selected	Review of monitoring programs.

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Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	2131	Evaluate NPDES activities on listed species	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Environmental Protection Agency	Work type not yet selected	Labor type not yet selected	Costs for ES Section 7 review and monitoring only.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	2132	Conduct toxicity test of hatchery effluent to determine effects on native molluscs	Ongoing Not Current	FY 2005		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Geological Survey, U.S. Environmental Protection Agency	Work type not yet selected	Contract	toxicity tests are being conducted currently by USGS. however, not all constituents of concern are being evaluated so upon completion of the present analysis, this recovery action will still be only partially complete. Last tests pertinent to BRS were completed in 2007. No additional tests on threatened and endangered species have been completed/ reported since. Additional information on nitrate toxicity was requested by IFWO, but has not been conducted.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	2133	Conduct sewage treatment wastewater toxicity tests	Ongoing Current	FY 2005		Idaho Department of Environmental Quality, U.S. Environmental Protection Agency	Work type not yet selected	Labor type not yet selected	SEE comments in recovery task 2132 regarding toxicity testing and constituents examined. USGS has conducted limited tests using copper, ammonia, PCP on BRS and pebble snails.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	214	Evaluate the TMDL process and water quality-limited segments.	Complete	FY 1995 - FY 1999	FY 1995 - FY 1999	U.S. Fish and Wildlife Service, Ecological Services Division, Idaho Department of Environmental Quality, U.S. Environmental Protection Agency	Work type not yet selected	Labor type not yet selected	Task conducted in 1998

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Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	221	Improve watershed conditions where agricultural return flows intersect BLM lands	Ongoing Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Bureau of Land Management, Private landowners	Work type not yet selected	Labor type not yet selected	Use Section 7 and landowner cooperation to accomplish this action. also, many other agencies and authorities may be appropriate including USDA-NRCS, USDA-FSA, Idaho Department of Lands, Idaho Department of Agriculture and others. also, numerous conservation/restoration projects have been implemented, for example by the U.S. Bureau of Reclamation, but a thorough analysis of the benefits to listed species from the collective completion of all projects has yet to be conducted.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	222	Improve watershed conditions where agricultural return flows intersect BR withdrawal lands	Ongoing Current	FY 2000 - FY 2004		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Bureau of Reclamation, Private landowners	Work type not yet selected	Labor type not yet selected	Use Section 7 and landowner cooperation. the Bureau of Reclamation has conducted several wetland construction/restoration projects in the Snake River Basin for the explicit purpose of improving irrigation return flows before they enter the Snake River. this recovery action is ongoing.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	224	Encourage enhancement and restoration of riparian and wetland habitats on private lands	Not Started			U.S. Fish and Wildlife Service, Ecological Services Division, National Tropical Botanical Garden, U.S. Farm Service Agency, Private landowners, Natural Resources Conservation Service	Work type not yet selected	Labor type not yet selected	ES will coordinate with local SCS and ASCS offices

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Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	311	Develop and implement a cooperative basin-wide survey of Snake River molluscs	Ongoing Current	Prior to FY 1995		Idaho Power Company, U.S. Bureau of Reclamation, Snake River Fish and Wildlife Office	Research	Internal Field Assistance, Internal Technical Assistance	Surveys for listed snails have taken place annually since 1995 by various entities including the Idaho Power Company, the Bureau of Reclamation, the Service, and the Idaho Transportation Department. Surveys are often driven by project proposals.
Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola)	1	312	Study the effects of the 1993 Bliss landslide on Snake River aquatic species	Obsolete			Idaho State University, U.S. Bureau of Land Management, U.S. Army Corps of Engineers	Work type not yet selected	Labor type not yet selected	surveys have been conducted for Bliss Rapids snails, and other listed molluscs, in the Bliss Reach, but a study specifically to address the impact of the 1993 Bliss land slide is impossible at this point b/c it is too long since the slide and b/c we have no reliable pre-slide information to compare it to.
Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola)	2	314	Conduct additional snail surveys at Minidoka National Wildlife Refuge	Ongoing Not Current	FY 1995 - FY 1999		U.S. Fish and Wildlife Service, Ecological Services Division, U.S. Bureau of Reclamation, U.S. Federal Energy Regulatory Commission	Research: Population Assessment	Internal Technical Assistance	surveys have been conducted at areas near and on Refuge managed areas of the Snake River; however, they are specific to proposed projects by the Bureau, and not tied to Refuge resource management. BOR is considering SRP surveys upstream of Walcott reservoir since habitat may be suitable.

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Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	321	Describe habitat and life history requirements of native molluscs.	Partially Complete	FY 2006		Idaho Power Company, U.S. Bureau of Reclamation, Snake River Fish and Wildlife Office, U.S. Geological Survey, U.S. Environmental Protection Agency	Research: Population Assessment, Research: Taxonomic Studies	Contract	<p>habitat requirements and life histories of listed snail species have been reviewed and researched by various entities including the Bureau of Reclamation, the Service, the Idaho Power Company, and Boise State University. while not complete, our understanding of the habitat requirements and life histories of listed snails is greatly improved through research and reviews conducted since 1995.</p> <p>Updated entry of 9/01/06 is specific genetic work being completed by the Banbury Springs Lanx by Dr. Stephanie Clark formerly of the University of Alabama (estimated cost was \$1,000)</p> <p>Additional work on habitat requirements has been conducted on Snake River physa by Gates and Kerans, 2010 through BOR.</p>

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Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	1	42	Select monitoring sites within the recovery area for each of the listed snails.	Ongoing Current	FY 1995 - FY 1999		Idaho Power Company, U.S. Bureau of Reclamation, Snake River Fish and Wildlife Office	Research: General	Labor type not yet selected	Monitoring sites are often determined by agencies according to proposed projects and through section 7 tech assist or consultation. Idaho Power Companies Snail Protection Plan currently under review by FERC for hydro license amendments, would require regular monitoring of 11 springs and 30 river locations to monitor status of BRS. This would be funded by Idaho Power Company. Annual lanx monitoring occurring at Banbury springs. Lanx water quality monitoring (temperature and nitrates) being carried out at 1,000 springs, Box Canyon, and Banbury Springs.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	2	51	Use existing flow augmentation programs to benefit listed species recovery	Unknown			U.S. Fish and Wildlife Service, Ecological Services Division, Idaho Department of Fish and Game, Idaho Department of Water Resources, Idaho Power Company, U.S. Bureau of Reclamation, U.S. National Marine Fisheries Service (NOAA Fisheries), Bonneville Power Administration, U.S. Federal Energy Regulatory Commission	Work type not yet selected	Labor type not yet selected	Cost-share project

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Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	2	521	Evaluate the State Comprehensive Plan for the Middle Snake River	Unknown			Idaho Department of Water Resources, Unknown	Work type not yet selected	Labor type not yet selected	A Comprehensive Plan for the Middle Snake River was completed in 1993, and to our knowledge has not been updated.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	2	522	Develop and implement the water quality-based standards necessary to protect existing mainstem and spring habitats.	Ongoing Current	FY 1995 - FY 1999		Idaho Department of Environmental Quality, U.S. Geological Survey, U.S. Environmental Protection Agency	Work type not yet selected	Labor type not yet selected	IDEQ addresses this action through establishment of TMDLs and implementation of point and non-point source pollution management plans, and EPA through the issuance of NPDES permits. However, standards and criteria established by EPA for water quality has not been consulted on, or shown to be protective of listed snails. USGS and EPA have conducted limited toxicity tests to determine if standards/criteria are protective; data is mixed and survival of listed species in the lab has been poor.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	2	523	Use the Ag Plan for meeting recovery objectives	Discontinued			Agricultural Water Quality Advisory Committee, Idaho Department of Water Resources, Idaho Department of Environmental Quality, Idaho Department of Agriculture, U.S. Farm Service Agency, U.S. Environmental Protection Agency, Private landowners, Natural Resources Conservation Service	Work type not yet selected	Labor type not yet selected	Idaho's Ag-Plan was completed in March 2003. We are not aware of the level of monitoring or effectiveness of the plan on reducing agricultural non-point source pollution. Regulatory authorities are limited with respect to ag.

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Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	2	524	Evaluate the Nutrient Management Plan for meeting recovery objectives	Obsolete			Idaho Department of Environmental Quality, U.S. Environmental Protection Agency	Work type not yet selected	Labor type not yet selected	Monitor for effectiveness, costs for ES review and monitoring only
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	2	53	Identify potential wetland enhancement projects to improve water quality from irrigated agricultural return flows.	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, National Tropical Botanical Garden, U.S. Farm Service Agency, U.S. Environmental Protection Agency, Private landowners, Natural Resources Conservation Service	Work type not yet selected	Labor type not yet selected	numerous entities are working on this recovery action including the USBR, NRCS, FSA, IDEQ, IDA. however, there has not been a thorough compilation of the various projects completed or underway to adequately determine improvements to the Snake River from this work associated with this recovery action.

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Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	2	541	Determine hydroelectric dam tailrace effects	Ongoing Current	Prior to FY 1995		U.S. Fish and Wildlife Service, Ecological Services Division, Idaho Power Company, U.S. Federal Energy Regulatory Commission	Work type not yet selected	Labor type not yet selected	this recovery action is presently being conducted through Section 7 consultation and Federal Power Act compliance. a settlement agreement reached by the FERC, the Service, and the Idaho Power Company will study hydroelectric dam operation impacts to native species over water years 2004 to 2009. Projects and reports completed by IPC (Clark et al. 2009) and BOR (Gates and Kerans 2010). Results and conclusions of those studies are being used for management decisions and still being reviewed to assess effects.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	2	542	Conduct toxicity tests on non-point and/or agricultural drain flows.	Partially Complete	FY 2005		Snake River Fish and Wildlife Office, U.S. Geological Survey, U.S. Environmental Protection Agency	Work type not yet selected	Contract	toxicity tests are being conducted currently by USGS. however, not all constituents of concern are being evaluated so upon completion of the present analysis, this recovery action will still be only partially complete. See 2132 and 2133 above.

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Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	2	56	Continue the NWQA Monitoring Program	Complete	Prior to FY 1995	FY 2000 - FY 2004	U.S. Geological Survey	Work type not yet selected	Labor type not yet selected	the USGS has completed the NAWQA for the middle Snake River and several reports of water quality have been published as a result. periodic updates of the status of water quality changes in the upper Snake River Basin are conducted, the most recent published by USGS in 2005.
Banbury Springs limpet (Lanx sp.), Snake River physa snail (Physa natricina), Bliss Rapids snail (Taylorconcha serpenticola), Utah valvata snail (Valvata utahensis)	2	71	Biennially assess the overall success of the recovery program and revise the recovery plan on a 5-year basis	Not Started			Snake River Fish and Wildlife Office	Work type not yet selected	Labor type not yet selected	